

COMMONWEALTH OF VIRGINIA
STATE AIR POLLUTION CONTROL BOARD

9 VAC 5 CHAPTER 190.
VARIANCE FOR MERCK STONEWALL PLANT.

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9 VAC 5-190-10. Applicability and designation of affected facility.

The affected facility to which the provisions of this chapter apply is the Merck Stonewall Plant.

9 VAC 5-190-20. Definitions.

A. For the purpose of this chapter or any associated orders issued by the board, the words or terms shall have the meaning given them in subsection C of this section.

B. As used in this chapter, all terms not defined herein shall have the meaning given them in 9 VAC 5 Chapter 10 (9 VAC 5-10-10 et seq.), unless otherwise required by context.

C. Terms Defined.

"Code" means the Code of Virginia.

"DEQ" means the Department of Environmental Quality, an agency of the Commonwealth described in § 10.1-1183 of the Code.

"Emissions caps" means the site-wide limitations on the rate of emissions of criteria pollutants established and identified as emissions caps in 9 VAC 5-190-30.

"EPA" means The United States Environmental Protection Agency.

"Merck" refers to Merck & Co., Inc., a New Jersey corporation authorized to conduct business in Virginia and the owner/operator of a plant (the Stonewall Plant), located at Route 340 South, in Elkton, Virginia.

"Order" means the order granting this variance.

"PM₁₀" means particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the applicable reference method or an equivalent method.

"PSD permit" means the Prevention of Significant Deterioration permit issued to Merck and Co., Inc., Stonewall Plant, pursuant to the Order.

"Regional Director" means the Director of the Valley Regional Office of the Department of Environmental Quality located in Harrisonburg, Virginia.

"SAPCB Regulations" means 9 VAC 5 Chapters 10 through 80.

"Site" and "Facility" and "Stonewall Plant" mean the contiguous property at Route 340 South, Elkton, Virginia, under common control by Merck & Co., Inc., and its successors in ownership.

"VAC" or "9 VAC" means Title 9 of the Virginia Administrative Code. This title comprises the environmental regulations for the Commonwealth of Virginia, including the regulations of the State Air Pollution Control Board.

"Variance" means this chapter.

9 VAC 5-190-30. Site-wide emissions caps.

A. On or after the date that Merck provides written notification to the DEQ that it accepts and will operate under the provisions of this chapter and Sections 1, 3 and 4 of the PSD permit, no owner or other person shall cause or permit to be discharged into the atmosphere from the affected facility any emissions in excess of the following site-wide emissions caps:

The total criteria pollutant emissions cap (total emissions cap) shall be 1503 tons per year (tpy). The criteria pollutants included in the cap are as follows: ozone (using volatile organic compounds (VOCs) as surrogate), sulfur dioxide (SO₂), particulate matter (PM₁₀), carbon monoxide (CO), and oxides of nitrogen (NO_x). The emissions caps for individual criteria pollutants shall be as follows:

1. For SO₂, the emissions cap shall be 719 tpy.
2. For PM₁₀, the emissions cap shall be 42 tpy.

3. For NO_x, the emissions cap shall be 291 tpy.

B. On or after the earlier of (i) the completion date of the powerhouse conversion project if Merck has provided the written notification pursuant to subsection A of this section or (ii) the first day of the month 12 months after completion of the powerhouse conversion project, no owner or other person shall cause or permit to be discharged into the atmosphere from the affected facility any emissions in excess of the following site-wide emissions caps:

The total criteria pollutant emissions cap (total emissions cap) shall be 1202 tons per year (tpy). The criteria pollutants included in the cap are as follows: ozone (using volatile organic compounds (VOCs) as surrogate), sulfur dioxide (SO₂), particulate matter (PM₁₀), carbon monoxide (CO), and oxides of nitrogen (NO_x). The emissions caps for individual criteria pollutants shall be as follows:

1. For SO₂, the emissions cap shall be 539 tpy.
2. For PM₁₀, the emissions cap shall be 42 tpy.
3. For NO_x, the emissions cap shall be 262 tpy.

C. Upon completion of the stack test for the powerhouse required by Table 4.2 of the PSD permit, the emissions cap for PM₁₀ prescribed in subsection B of this section may be adjusted by the DEQ based on the results of the stack test and in accordance with Section 4.3.2 of the PSD permit.

9 VAC 5-190-40. Major New Source Review permitting and registration requirements.

A. This section applies in lieu of regulatory requirements for the following pollutants: ozone (using volatile organic compounds as surrogate), sulfur dioxide, particulate matter, particulate matter (PM₁₀), carbon monoxide, and oxides of nitrogen. This section is not intended to provide an alternate method of compliance for any future regulatory requirements designed to address particulate matter with aerodynamic diameter less than or equal to a nominal 2.5 microns (PM_{2.5}).

B. For the pollutants cited in subsection A of this section, compliance with this chapter and the PSD permit shall constitute compliance with the following provisions of the SAPCB regulations:

9 VAC 5-20-160.

9 VAC 5 Chapter 50, Part II, Article 4 (9 VAC 5-50-240 et seq.).

9 VAC 5 Chapter 80, Part II, Article 8 (9 VAC 5-80-1700 et seq.).

9 VAC 5 Chapter 80, Part II, Article 9 (9 VAC 5-80-2000 et seq.).

9 VAC 5-190-50. Other regulatory requirements.

A. This section applies in lieu of regulatory requirements for all pollutants except: lead, particulate matter regulated as PM_{2.5}, or any criteria pollutant which is listed in the definition of "Significant" in 9 VAC 5-80-1710 C by an amendment adopted after November 15, 1997.

B. For the pollutants cited in subsection A of this section, compliance with this chapter and the PSD permit shall constitute compliance with the following provisions of the SAPCB regulations:

1. Pertaining to minor new source review permitting and registration:

9 VAC 5-20-160.

9 VAC 5 Chapter 50, Part II, Article 4 (9 VAC 5-50-240 et seq.).

9 VAC 5-80-10.

9 VAC 5-80-11.

2. Pertaining to standards of performance for stationary sources:

9 VAC 5 Chapter 50, Part II, Article 4 (9 VAC 5-50-240 et seq.).

3. Pertaining to the Virginia Air Toxics Program requirements:

9 VAC 5 Chapter 40, Part II, Article 3 (9 VAC 5-40-160 et seq.).

9 VAC 5 Chapter 50, Part II, Article 3 (9 VAC 5-50-160 et seq.).

4. Pertaining to notification, records, and reporting requirements:

9 VAC 5-40-50.

9 VAC 5-50-50.

5. Pertaining to emission standards for general process operations, incinerators, and fuel burning equipment:

9 VAC 5-40-22.

9 VAC 5 Chapter 40, Part II, Article 4 (9 VAC 5-40-240 et seq.).

9 VAC 5 Chapter 40, Part II, Article 7 (9 VAC 5-40-730 et seq.).

9 VAC 5 Chapter 40, Part II, Article 8 (9 VAC 5-40-880 et seq.).

6. Pertaining to compliance and monitoring requirements:

9 VAC 5-40-20.

9 VAC 5-40-21.

9 VAC 5-40-40.

9 VAC 5-40-41.

9 VAC 5-50-40.

9 VAC 5-190-60. Certain emissions standards, permitting, and other requirements.

A. This section applies in lieu of regulatory requirements for all pollutants except: lead, particulate matter regulated as PM_{2.5}, or any criteria pollutant which is listed in the definition of "Significant" in 9 VAC 5-80-1710 C by an amendment adopted after November 15, 1997.

B. For the pollutants cited in subsection A of this section, compliance with this chapter and the PSD permit shall constitute compliance with the following provisions of the SAPCB regulations:

1. Pertaining to standards of performance for new stationary sources:

a. For the natural gas-fired boilers installed in accordance with Section 2.1 of the PSD permit, compliance with that permit shall constitute compliance with all requirements of 9 VAC 5 Chapter 50, Part II, Article 5 (9 VAC 5-50-400 et seq.).

b. For any new and existing bulk volatile organic liquid storage vessels (including petroleum liquid storage vessels) that would otherwise only be subject to notification, recordkeeping and reporting requirements, compliance with the PSD permit shall constitute compliance with 9 VAC 5 Chapter 50, Part II, Article 5 (9 VAC 5-50-400 et seq.).

2. Pertaining to control programs:

9 VAC 5-20-170, except for visible emissions and odor.

3. Pertaining to facility and control equipment maintenance or malfunction, except for visible emissions and odor:

9 VAC 5-20-180.

9 VAC 5-50-20.

4. Pertaining to compliance, monitoring, and performance testing:

9 VAC 5-40-30, all except 9 VAC 5-40-30 B.

9 VAC 5-50-30, all except 9 VAC 5-50-30 B.

C. Should any regulation of the board become applicable to the Stonewall Plant after November 15, 1997 that establishes requirements for any of the criteria pollutants listed in 9 VAC 5-190-30, Merck may choose to comply directly with the requirements of these new regulations or to make commensurate reductions in applicable emission caps in accordance with Section 1.2.2 of the PSD permit.

9 VAC 5-190-70. Federal operating permits.

A. Merck shall be subject to the provisions of 9 VAC 5 Chapter 80, Part II, Article 1 (9 VAC 5-80-50 et seq.) except as follows:

1. Compliance with monitoring requirements specified in Section 4 of the PSD permit shall constitute compliance with any monitoring requirements in 9 VAC 5-80-110 E that would be applicable to provisions of the PSD permit.

2. Compliance with recordkeeping and reporting requirements specified in Section 4 of the PSD permit shall constitute compliance with any recordkeeping and reporting requirements in 9 VAC 5-80-110 F 1 and 9 VAC 5-80-110 F 2 a that would be applicable to the PSD permit.

3. The PSD permit and documentation submitted in obtaining the PSD permit are deemed sufficient for the permit application requirements pertaining to the applicable requirements in the PSD permit. For applicable requirements outside of the PSD permit, Merck shall submit information on standard forms provided by DEQ, or in accordance with instructions accompanying those forms, or as otherwise acceptable to DEQ.

4. Merck's initial federal operating permit application need not list equipment, emissions or applicable requirements as of the time of application, but rather as of the conditions representative of the PSD permit.

5. Merck's initial federal operating permit application compliance certification need not be based on applicable requirements as of the time of application, but rather as of the conditions representative of the PSD permit, expressed as a future commitment to meet those requirements if they are not in effect at the time of application.

6. If all of the provisions of the PSD permit have not become effective by January 10, 2000, Merck shall submit a revised application for a federal operating permit which shall list all equipment, emissions and applicable requirements as they exist at that time, and shall make the applicable compliance certification in accordance with those current requirements.

B. Merck shall be subject to the provisions of 9 VAC 5 Chapter 80, Part II, Article 2 (9 VAC 5-80-310 et seq.) and shall provide DEQ with emission inventory update information sufficient to allow DEQ to assess permit program fees.

9 VAC 5-190-80. PSD permit issuance and modifications.

A. DEQ shall issue and modify the PSD permit in accordance with the procedures set forth in subsections B through D of this section. Public participation activities associated with issuance of the PSD permit which were conducted prior to November 15, 1997 shall be considered applicable toward meeting the requirements of this section. DEQ shall specify within the PSD permit the conditions under which the PSD permit may be modified.

B. DEQ shall provide for public participation prior to issuing the PSD permit. At a minimum, DEQ shall:

1. Make available for public inspection in at least one location in the area of the site the information submitted by the permittee, the DEQ's analysis of the effect on air quality including the preliminary determination, and a copy or summary of any other materials considered in making the preliminary determination;

2. Notify the public by advertisement in a newspaper of general circulation in the area of the site of the application, the preliminary determination, and of the opportunity for comment at a public hearing as well as written public comment;

3. Provide a 30-day period for submittal of public comment;

4. Send a copy of the notice of public comment to the following: the EPA Administrator, through the appropriate Regional Office; any other State or local air pollution control agencies, the chief executives of the city and county where the site is located; any State, Federal Land Manager, or other governing body whose lands may be affected by emissions from the site; and

5. Provide opportunity for a public hearing for interested persons to appear and submit written or oral comments on the air quality impact of the site, the control technology required, and other appropriate considerations.

C. For any change that does not meet the criteria for an administrative permit modification established in subdivision D 1 of this section, DEQ shall provide an opportunity for public participation consistent with the provisions of subsection B of this

section prior to processing the permit modification.

D. The following provisions govern administrative permit modifications:

1. An administrative permit modification is a permit revision that:
 - a. Corrects typographical errors;
 - b. Identifies a change in the name, address, or phone number of any person identified in the PSD permit, or provides a similar minor administrative change at the site;
 - c. Requires more frequent monitoring, recordkeeping, or reporting by the permittee;
 - d. Allows for a change in ownership or operational control of a source where DEQ determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to DEQ.
 - e. Updates the emission calculation methods specified in the permit, provided that the change does not also involve a change to any site-wide emissions cap.
 - f. Changes the monitoring, recordkeeping, or reporting requirements for equipment that has been shutdown or is no longer in service; or
 - g. Any other change that is stipulated in the PSD permit as qualifying as an administrative permit modification, provided that the permit condition which includes such stipulation has already undergone public participation in accordance with subsection B of this section.
2. DEQ may make an administrative permit modification consistent with the following procedures:
 - a. DEQ shall take final action on any request for an administrative permit modification within 60 days from receipt of the request, and may incorporate such changes without providing notice to the public, provided that DEQ designates any such permit revisions as having been made pursuant to this Paragraph.
 - b. DEQ shall submit a copy of the revised permit to the EPA Administrator.
 - c. Merck may implement the changes addressed in the request for an administrative permit modification immediately upon submittal of the request to

DEQ.

9 VAC 5-190-90. Transfer of ownership.

A. The terms of this chapter and the PSD permit are transferable to a new owner upon sale of the site in accordance with provisions specified by the PSD permit.

B. In the case of a transfer of ownership of the site, the new owner shall comply with this chapter and the PSD permit. The new owner shall notify the DEQ of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-190-80 D.

C. In the case of a name change of the site, the owner shall comply with this chapter and the PSD permit. The owner shall notify the DEQ of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-190-80 D.

9 VAC 5-190-100. Applicability of future regulation amendments.

Subsequent amendments to the SAPCB regulations to which this chapter applies shall not apply to the Stonewall Plant unless and until the board amends this chapter to specifically address the applicability of the regulatory amendments to the facility. In any action to amend this chapter, the board shall, to the maximum extent possible, preserve the operating flexibility and regulatory simplification achieved by the Merck XL project and justified by the superior environmental performance it provides.

9 VAC 5-190-110. Documents incorporated by reference.

A. The United States Environmental Protection Agency Regulations on Approval and Promulgation of Implementation Plans (40 CFR Part 52) and Standards of Performance for New Stationary Sources (40 CFR Part 60), as indicated in subsection B of this section, are incorporated by reference into this chapter as amended by the word or phrase substitutions given in subsection C of this section.

B. The following documents (October 8, 1997, 62 FR 52622) from the United States Environmental Protection Agency are incorporated herein by reference:

1. 40 CFR 52.2454: Prevention of significant deterioration of air quality for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia.
2. 40 CFR 60.1: Applicability.
3. 40 CFR 60.49b: Reporting and recordkeeping requirements.
4. 40 CFR 60.112b: Standard for volatile organic compounds (VOC).

C. Word or phrase substitutions.

In all the standards designated in subsection B of this section, substitute:

1. "Board" for "Administrator".
2. "Board" for "U.S. Environmental Protection Agency".

HISTORICAL NOTES:

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